INDUSTRIAL INTELLIGENCE AND DYNAMIC FACTOR FIT ANALYSIS: A PRIVATE SECTOR LED INDUSTRIAL POLICY FRAMEWORK

by

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Introduction

Industrial Policy in a market-oriented context does not have to turn into "Industrial Chaos or Cronyism" if it is developed from an objective and a cost-effective evaluation of the factors of production capabilities of an economic area to fit potential industries, and if the final selection of viable industries is left to private sector entrepreneurs with socially responsible consciousness. The rapidly changing and intensively competitive global environment requires the reconsideration of this previously misunderstood and misused policy tool if the U.S is as a nation-state to retain its position of economic dominance.

The growing prevalence of economic globalization interests over domestic market forces and public policies, demand increased cooperation between the private and public sectors of nation-states. Both sectors must increase the coordination of their respective strengths under a competitive free and fair market framework[1]. They must do so to optimize the emerging global opportunities without sacrificing their respective nations' socioeconomic development and political autonomy. In particular, a more objective and efficiently coordinated allocation of domestic resources are of primary relevance to developed nations accustomed to traditional

practices. Otherwise, they run the chance of sliding into a developing nation-state status under the highly interdependent, evolving and fast paced global paradigm. This cooperative framework between private and public economic agents does not require diluting the interplay of free and fair competitive markets. On the contrary, cooperation strengthens them as it recognizes and reinforces their complementary roles. A national industrial framework derived from a well designed and executed industrial intelligence and resources-cum-culture fit analysis would set the stage.

The historical opposition to, and the de-accreditation of previous excursions into national industrial policy (NIP) proposals, originates not from its lack of economic validity, or of period-relevance, but from its skewed design and implementation deriving from heavy-handed politically motivated interventions.[2] A valid criticism of its record rests fundamentally in the absence of an objective and comprehensive analytical framework, including a process designed to identify (with the national well-being as the ultimate goal) viable sets of industries with global, national and regional reach. These would be the sets of industries to which industrial policies could be developed and implemented for. Under this scheme the private sector and not political patronage would vote with their investments for the set of industries to which public programs and assets would be allocated. Missing in previous attempts were a comprehensive area-wide human and natural resources inventories' analyses, designed to establish the best factor fit to growth and emerging industries at the local, regional, national and global levels. Cultural preferences in the pertinent geographic base areas would also play a role in the final screening and selection of specific industries.

Again, prior national experiments with industrial policy left the above fundamental approach out, creating a vacuum in the industry selection process that was readily and gladly

filled by political determinants. These determinants including the ever-present influential special interests that discredited the principles behind industrial policy as well as the processes involved and products derived. Viable industrial policy must not involve protectionism or subsidies, but instead the strengthening of the competitive wherewithal of factor-fitting industries. It is essential to notice that we mention industries as a whole, and not specific firms. The participating firms are not pre-selected, but are to emerge naturally out of competitive processes within the general frame of reference of free, fair and competitive markets.

Justification

Industrial Policy to be effective must not be based on central planning ideologies, but on **central support** to initiatives strengthening and voluntarily supported by the private sector. The public sector does play a pivotal supporting role, but in providing comprehensive and well digested industrial analyses and intelligence to the market. This support and its accompanying activities do not include determining which of the resulting alternative paths to take; this must be left to the socioeconomic agents from the private sector, subject to a rational and comprehensive legal framework.

Industrial policy derives its negative connotation from politicians injecting protectionism and special interest practices. Furthermore, previous proposals in support of industrial policy made insufficient, if no reference at all, to factor availability and fit analysis in the determination of the industrial composition to support. his determination, although essential, requires a level of time, resources and an extent of ongoing market intelligence that individual businesses and perhaps even industries, cannot afford on their own. The public sector however, does have the resources and networks (academic and non-academic) to coordinate such an extent of industrial

intelligence and factor fit analysis, similar to one used by the Japanese model of the post World War II era.

The valid approach is not to dictate to the markets, but to inform its participating socioeconomic agents on a current and ongoing basis of viable and sustainable industries within specific geographical boundaries. The private sector agents would then determine on what industry to invest (if not already part of it) with public sector support in the form of improved infrastructure and capital availability among others. Therefore, industrial intelligence and factor fit analysis would come first of all, and thereafter industrial policy would emerge in an effort to strengthen the chosen industries.

There will be extensive cooperation in the analysis, but open and intensive competition in the implementation. Widespread cooperation will prevail between the public and private sector agents conducting the industrial intelligence and dynamic factor fit analysis, but this cooperation will shift to intense competition within the industries selected. Industrial intelligence and dynamic factor fit analysis and supporting industrial policies address not just economic growth in general, but also the mix, evolution and long term sustainability of the industrial composition of a nation and its economic regions.

Moreover the interests of influential globally-distributed industries have been gaining relevance over national concerns and even primacy over geo-political issues. If nations do not support the design and implementation of sound academic based industrial policy, the reigning unaligned industries could end up undermining national sovereignty by exploiting local assets and political mind sets for the benefit of potentially unbalanced and unsustainable economic paths.

Misconceptions and Gaps

Notice in the following lists of supporting and rejecting statements made in the past about industrial policy, the absence of an objective industrial intelligence and resource availability data gathering process to arrive at a factor fit - industrial selection step. Notice instead the abundance of already accepted or projected industries and even specific businesses without a scientific validation of their long or even short-term viability and sustainability in an openly competitive global environment.

Supportive positions*:*

- The failures of many of our country's industrial markets are making major segments of the economy uncompetitive. These deficiencies are being exacerbated by the prevalent disarray in the political arena that makes it impossible to arrive at a coherent and cohesive national industrial policy (Dr Robert Reich former U.S. Secretary of Labor).
- The nation is de-industrializing and losing its core industrial base (ibid.).
- Japan and several European countries are organized for economic adaptation (ibid.).
- The post- WWII Japanese economic success was anchored on industrial policies orchestrated by its Ministry of International Trade and Industry (Dr. Lester Thurow).
- The economy needs the government to determine which industries are more likely to be competitive in the global economy and how they should be aided (ibid.).
- The U.S. has had an undeclared industrial policy for years aimed at creating the world's most advanced military industry.
- The U.S. will be at a disadvantage in world competition if we do not find an American way of working together. A way to establish a standard method/approach for industry and government to cooperate on what they consider to be critical industries and technologies.

- Leave it to I.B.M. and Hewlett Packard to decide the important future technologies. Washington does not have any comparative advantage doing that (Dr. Herbert Stein).
- Industry should do the choosing, and when it is clear that a particular technology has the potential to be a winner, government should help it become one (Senator Bingaman).
- The "Washington Consensus" on pushing developing nations to opening up their markets -"let unregulated markets run the show"- failed. China, India and other Asian countries' success is not from having opened their markets with neo-liberal abandon, but by placing great attention to their policy choices and by an explicit government involvement in the economy that can only be described as industrial policy (Dr. Dani Rodrik).

Rejecting Positions:

- Coordination programs by government would increase protectionism and unwarranted subsidies (Dr. Charles L. Schultze).
- The "Invisible Hand" of the free market should make the decisions about industrial structure, even though the choices would be imperfect (ibid.).
- Proponents generally supported "protectionism". They wanted tariffs, quotas and "voluntary export restraints".
- Tripartite Councils composed of management, labor and government would seek consensus on how capital investments should be allocated. However, many economists feared that Development Banks and Tripartite Councils would give declining industries and unions undue political power.
- John Kenneth Galbraith and other early proponents of NIP (National Industrial Policy) would have the government exclusively plan major sectors of the economy.

- Pessimistic claims and projections by NIP proponents did not square with the economic facts. For example, the industrial sector did not decline as percentage of GDP.
- Democratic economists could not support the protectionist aspects of industrial policy. That is, free trade does not destroy jobs and protectionism hurts consumers more than it helps producers.
- NIP would slow the contraction of declining industries and invoke plant closing restrictions that would slow the outflow of capital to expanding industries
- The subsidies required to slow the decline of contracting industries would require higher taxes that in turn would discourage the emergence of sunrise industries.
- The likely outcome of NIP protecting the losers and picking the winners is that losers would back the subsidies for the winners in return for the latter's support on issues of trade protection.
- There was no evidence that American labor and capital are incapable of making the gradual transitions required in a dynamic economy.
- Government officials believing themselves to be omniscient would somehow divine the growth industries of tomorrow and throw the government weight and money behind them. How could the people who brought the world to a $300 billion annual deficit be capable of summoning an accurate vision?

Strategies

Note that previous proponents and opponents of industrial policy assumed that the decision on selected and rejected industries and supporting policies was going to be left in the hands of government officials alone or to pre-determined public and private sector "experts". Our proposed approaches leave out the public sector from the industry determination phase, and

focus its contribution on intelligence gathering, analysis and results dissemination. Once the factor fitting industries have been identified, cooperation would again be used in the determination and implementation of support policies to strengthen the final set of private sector selected industries.

The innate incentive for the private sector participants to support this concept rests on the fact that contributing with and disseminating timely and comprehensive information would strengthen the analysis and benefit the competitive position of all the participants. The withholding of such contribution by any of the participants from the private sector would hurt all as well. The public sector on the other hand, would benefit by being able to allocate its limited resources in support of private sector decisions based on an objective and dynamic evaluation of the relevant data.

Once the set of viable emerging and growth industries for a particular region or locality has been identified, and the economic agents from the private sector have cast their lot with their preferred industries, competition and not cooperation would become the norm in the ensuing market exchanges. Cooperation is the rule in the analysis and update/feedback phase, but competition prevails in the implementation phase. The provision of sufficient amounts of objectively collected and digested industrial intelligence converted into a practical format for decision making would promote success in the very dynamic, interconnected and rapidly changing global marketplace.

The Model

A potential conceptual framework for a model incorporating the above design elements could include the four interacting modules below. These four modules would be framed within a continuous feedback loop. They are:

1- **Factors of Production Data Warehouse Module** – designed to provide a running inventory, including specific location, of all the economic resources of the locality under analysis.

2- **Industry Factor-Printing Module** – designed to determine the degree of compatibility of a region's inventory of resources to the ideal input requirements for the industries under evaluation. This module would determine both the degree of fit and the absorption capacity of a geographic area for the set of industries under consideration. This analysis would also include their evolution in the long-run.

3- **Econometric Program Module –** designed to provide dynamic economic impact forecasts for the regions or localities from the set of industries under evaluation.

4- **Business Development and Strategic Intelligence Module –** designed to provide market intelligence and technical assistance to participating businesses from the final list of selected industries.

Conclusion

Industrial policy, like any well designed socioeconomic development plan, needs to be derived from a comprehensive, dynamic and objective evaluation of the known determinants for its success. Industrial policy, to be effective, cannot be introduced from a top–down approach, much less on a subjective basis even if proposed by known "experts' on the subject. To be effective, Industrial Policy must be:

First, totally objective in identifying viable industries for specific geographic areas in the long run. This in turn requires academic analysis and economic projections by qualified researchers and scientists.

Second, after the dynamic analysis is completed, the resulting list of area resources and culturally-fitting industries must be offered to the private sector to choose freely from and invest in, but never imposed upon.

Third, then and only then, Industrial Policy programs would be specifically designed in cooperation with and support for the industries selected by the private sector.

Fourth, strong and open competition within and between the participating industries and businesses will be encouraged thereafter, i.e. the "invisible hand" [3] would be allowed to operate in earnest.

Fifth, feedback from the participating businesses on their successes and failures would be incorporated into the relevant modules and include factor inventories updates.

Sixth, ongoing global market intelligence analysis would be injected into the model's informational loops to keep the players abreast of coming opportunities and threats.

Previous excursions into NIP were discredited from the approaches being distorted and hijacked not only by "special economic interests" but also by "special ideological interests" bent on validating their economic perspectives through public acceptance, even if coerced.[4] The support for cronyism, special interests, favoritism, central planning, top-down determinations and expert's subjective choice have no room in a valid and viable approach to industrial policy. On the other hand, ongoing industrial intelligence and dynamic factor fit analysis designed to offer investment choices and public support to voluntary private sector participation does. Global economic integration, under open and competitive markets, generates tremendous fast-paced changes and overwhelmingly powerful economic currents for any one industry and individual entrepreneur to successfully deal with unassisted by a well integrated national support mechanism.

Finally, our national productive capacity has been of such magnitude, that we only have needed to employ a fraction of our resources to supply our total demand for basic products. Today due to globalization with its concomitant expansion of specialization and trade, we do not even supply such demand. Unfortunately due to the absence of the type of industrial policy we recommend, our surplus resources have been for the most part allocated to the production of relatively superfluous output with short domestic product life-cycles and often with none, globally. Therefore, we want to emphasize, the United States of America needs such strategy urgently.

Endnotes

[1] **Learning from notable past mistakes is wise:** In 1941-43, (Milton Friedman 1941-43) worked on wartime tax policy for the Federal Government, as an advisor to senior officials of the United States Department of the Treasury. As a Treasury spokesman in 1942 he advocated a Keynesian policy of taxation, and during this time he helped to invent the payroll withholding tax system. In his autobiography, he comments on ***"how thoroughly Keynesian I was then."*** As Friedman grew older he reversed himself and in 2006, said***, "You know, it's a mystery as to why people think Roosevelt's policies pulled us out of the Depression. The problem was that you had unemployed machines and unemployed people. How do you get them together by forming industrial cartels and keeping prices and wages up?"***

[2] Demagogues manipulate negative feelings of the people and channel their anger against legitimate entrepreneurs, as it is seen in the theoretical foundation of Industrial Capitalism: ***"In years of scarcity, the inferior ranks of people impute their distress to the avarice of the corn merchant, who becomes the object of their hatred and indignation."*** Adam Smith, **An Inquiry**

into the Nature and Causes of the Wealth of Nations, p. 104, Vol. II, Book IV, Oxford at the Clarendon Press, 1869.

[3] Ibidem.

[4] Ibidem.

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